



## HSWA PORTION OF THE RCRA PERMIT

OWNER/OPERATOR: Chevron Products Company  
250 Industrial Road  
Pascagoula, Mississippi 39608

EPA I.D. No. MSD054179403

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 et seq., and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated there under by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), a permit is issued to the Chevron Products Company (hereafter called the Permittee), a petrochemical refinery containing a hazardous waste treatment and storage facility located in Pascagoula, Mississippi, at latitude N 30 degrees, 19 minutes, 004 seconds, and longitude W 88 degrees, 28 minutes, 037 seconds.

This HSWA Permit, in conjunction with the RCRA Part B Permit issued by the State of Mississippi constitutes the full RCRA Permit for this facility. This HSWA permit is being issued to replace the HSWA Permit issued on September 26, 1997. This HSWA Permit addresses implementation of the final remedy and completion of HSWA Corrective Action.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including those in any attachments) and applicable regulations contained in 40 CFR Parts 260 through 264, 266, 268, 270, and 124 as specified in the permit and statutory requirements of the Solid Waste Disposal Act as amended by RCRA and HSWA, and the guidance cited herein. Nothing in this permit shall preclude the Regional Administrator from reviewing and modifying the permit at any time during its term in accordance with 40 CFR §270.41.

This permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this permit are accurate. Any inaccuracies found in this information or information submitted as required by this permit may be grounds for termination or modification of this permit in accordance with 40 CFR §270.41, §270.42, and §270.43 and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

The authority to perform all actions necessary to issue, modify, enforce, or revoke this permit has been delegated by the Regional Administrator to the RCRA Division Director.

This permit is effective December 18, 2006, and shall remain in effect for 10 years until December 18, 2016, unless revoked and reissued, or terminated under 40 CFR §270.41 and §270.43 or continued in accordance with 40 CFR §270.51(a). All obligations for performance of HSWA provisions required under this permit are in effect until deemed complete by the Regional Administrator.

If any conditions of this permit are appealed in accordance with 40 CFR §124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR §124.16 shall be determined by final agency action as specified under 40 CFR §124.19.

Issued Date \_\_\_\_\_ 2006

Kenneth R. LaPierre, Acting Director  
RCRA Division

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## **PART I. PURPOSE of PERMIT**

The purpose of this HSWA Permit is to protect Human Health and the Environment by implementing the final remedy and completing RCRA Corrective Action as described in the 2004 Performance Agreement. Language in this HSWA Permit describes the corrective measures implementation (the Remedy), institutional controls, financial assurance requirements, post closure monitoring, completion of the remedy, and termination of the permit.

The Regional Administrator may choose to streamline the HSWA permitting process by allowing the facility to skip or combine steps in the traditional Subpart S corrective action process. These changes can be made at the discretion of the Regional Administrator, without amending the permit. For this facility, the Regional Administrator has chosen to allow the Permittee to implement the Remedy and complete RCRA Corrective Action as described in the 2004 Performance Agreement.

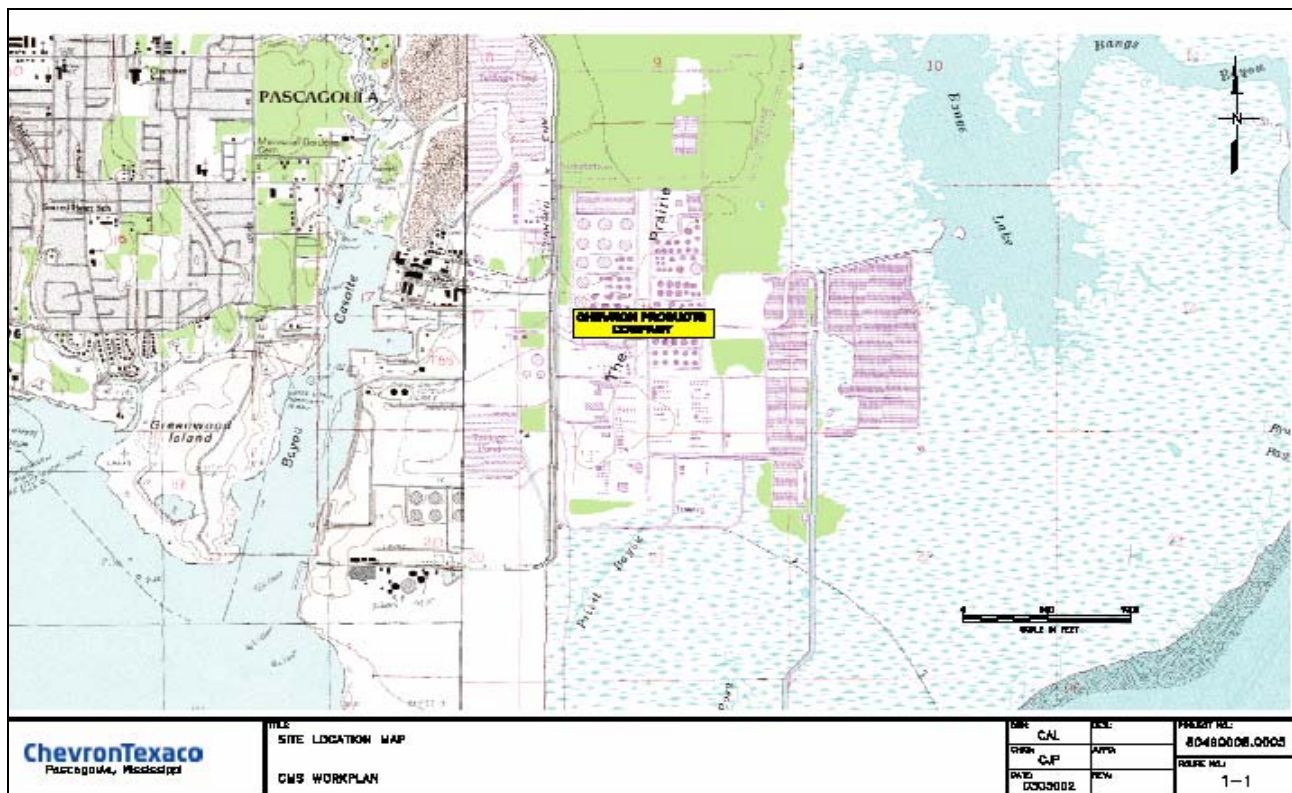
## **PART II. PERFORMANCE AGREEMENT**

The United States Environmental Protection Agency and the Chevron Products Company signed a Performance Agreement on May 3, 2004 to enable the Chevron Products Company to complete RCRA Corrective Action at the Pascagoula, Mississippi Refinery in an expeditious manner. The basis of the Performance Agreement is the OSWER guidance document entitled EPA Results-Based Approaches and Tailored Oversight Guidance for Facilities Subject to Corrective Action under Subtitle C of the Resource Conservation and Recovery Act EPA530-R-03-012, dated September 2003, and the guidance, policy and regulations cited therein. EPA believes that the Chevron Products Company can efficiently and effectively remediate the site to meet the performance standards described in this permit using the Performance Agreement as the corrective action mechanism, in a more appropriate time frame than a traditional permit alone. The Performance Agreement applies to the Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) described in Table 1, and any additional SWMUs or AOCs discovered, created or requiring corrective action in the future. In the event of a conflict between the Performance Agreement and the HSWA Permit, the HSWA Permit takes precedence.

## **PART III. SUMMARY STATUS of CORRECTIVE ACTION**

This HSWA Permit is being issued to the Chevron Products Company, Pascagoula Refinery for the implementation of the final remedy and the completion of RCRA Corrective Action at the facility. The facility is located in the southeastern corner of Mississippi and is situated within the coastal plain of the Gulf of Mexico, Figure 1.

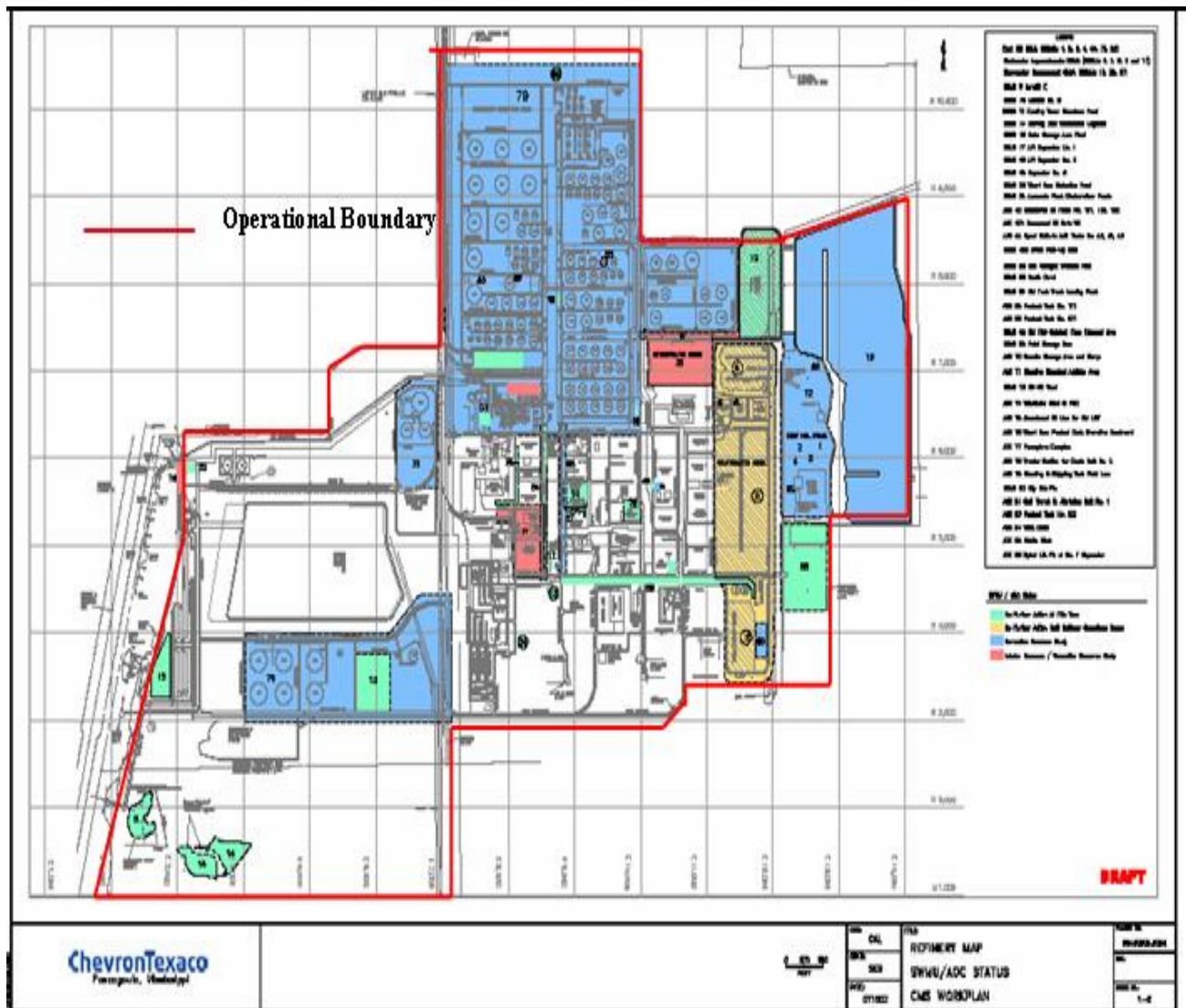
**Figure 1. Location of Chevron Pascagoula Refinery Pascagoula, Mississippi.**



## Facility Background and History

The Chevron Pascagoula Refinery (hereinafter refinery or facility) was built in the early 1960's and went into operation in 1963. The refinery is owned by Chevron U.S.A, Inc. (CUSA) and is operated by Chevron Products Company, a division of Chevron U.S.A. Inc. The facility property consists of approximately 3,000 acres, 2,600 acres of which were acquired in 1961-62 with an additional approximate 450 acres added in 1980-81. A total of 1,000 acres have been developed industrially. This area of the property is known as the Operating Area, and is bounded by the Operational Boundary, as shown in Figure 2. This HSWA permit refers to the Operational Boundary as the Point of Compliance, and also to the larger Facility Boundary. In no case is the Operational Boundary larger than the Facility Boundary, and in some cases they are the same. By making the Operational Boundary the Point of Compliance, the facility is agreeing to more stringent conditions than are required by the regulations. These conditions are more protective of the undeveloped portions of the facility that are outside of the Operational Boundary, but still within the Facility Boundary.

**Figure 2. Operational Boundary and Corrective Action Areas of SWMUs and AOCs at the Chevron Pascagoula, Mississippi Refinery.**



of pine savannah and upland hard wood forests, which remains a buffer between the facility and industries located further north along Highway 611.

The facility was originally designed as a 150,000 barrel per day petroleum refinery. The configuration changed to include a petrochemical facility with the addition in 1966 of the Paraxylene Plant and the Ammonia Plant. Additional petrochemical facilities were added, as well as additional crude capacity and associated processing units. The refinery has seen a number of expansions and modifications over the past 40 years that have included the doubling of crude processing capacity. Recent additions include the Pascagoula Residuum Conversion Project in 1980, the Aromax Project in 1992, the Paraxylene Expansion Project in 1996 and the Clean Fuels Project in 2002. The refinery currently processes, on average, up to 325,000 barrels per day of crude oil and manufactures a variety of gasoline, liquefied petroleum gas, jet and diesel fuels and petroleum coke as well as paraxylene, benzene, ethylbenzene and sulfur.

The Pascagoula Refinery is the largest of Chevron's refineries in the United States and one of the ten largest refineries in the United States. Additional information can be found on the refinery's website at [www.chevronpascagoula.com](http://www.chevronpascagoula.com).

### **RCRA Facility Assessments & HSWA Permits**

This is the third HSWA Permit issued to the facility, the first was issued on April 15, 1986, and the second on September 26, 1997. The facility conducted the first RCRA Facility Assessment (RFA) in 1986. In August 1990, a second RFA was conducted by EPA, which resulted in a new list of SWMUs requiring further action. The second RFA resulted in the list of SWMUs that has been under corrective action since the 1997 HSWA Permit was issued.

### **RCRA Facility Investigations**

RCRA Facility Investigations (RFIs) have been conducted at various times in the facility's history. The facility submitted a Phase I RFI Sampling and Analysis Plan in June 1993 that addressed all SWMUs and AOCs identified by the EPA as requiring further action. After comments and responses, the EPA approved the Phase I RFI Work Plan in June of 1994. The field implementation of the Phase I RFI was completed in March of 1995, and the Phase I RFI Report was submitted to the EPA in June 1995. The Phase I RFI Report recommended No Further Action (NFA) for certain sites and the need for a Phase II RFI for the remaining corrective action sites. The facility submitted the Phase II RFI Work Plan to the EPA in March 1996, and in September 1998, the EPA issued conditional approval. The Phase II RFI field effort was completed in July 1999. The Phase II RFI Report (Final RCRA Facility Investigation and AOC Confirmatory Sampling Report) was submitted to the EPA in September 2001 and was given conditional approval by EPA in April 2002. The major remaining portion of the RFI process is completion of the Ecological Risk Assessment (ERA) at Lagoon No. 3. As part of the RFI activities, a site-wide Human Health Risk Assessment (HHRA) and a Screening Level



Ecological Risk Assessment (SLERA) were conducted to estimate the likelihood that exposure to metals or chemicals in various media at each SWMU or AOC could pose a potential health risk to humans or the environment. The site-wide HHRA identified no potential for an adverse effect to human health. The potentially significant and complete exposure pathways were identified for all media (soil, sediment, surface water, and groundwater) at the facility and include:

- Direct contact with soil by on-site workers (ingestion and dermal contact),
- Dermal exposure by on-site construction workers to groundwater,
- On-site maintenance worker contact with surface water,
- Exposure to all media by on-site trespassers.

These potential exposures are, and will be controlled by internal facility controls, monitored by the EPA. These controls include, but are not limited to, construction permit approvals prior to initiation of any work, rights of way including oil and gas corridors, ‘no dig’ controls, safety and environmental monitoring of known or suspected contamination sites, and contractor and employee safety and health training.

The findings of the SLERA indicated that concentrations of several metals in sediments in some SWMUs and AOCs exceeded screening ecological levels from EPA Region 4, particularly with metals found in the sediments of Lagoon No. 3. The SLERA also indicated that only Lagoon No. 3 could provide an attractive habitat to wildlife. A site specific ERA for Lagoon No. 3 was submitted by Chevron in January 2005, but has not yet been approved by EPA; and, recommendations for the Remedy at this location, SWMU 10, are still under evaluation at this time.

### **Corrective Measures Study and Site-Wide Remedy**

In year 2002, EPA called for a final Corrective Measures Study (CMS) that would encompass the site-wide remedy. The facility responded with a Corrective Measures Study Report, approved by EPA in April 2004, wherein the alternatives for the remedy at the entire site were presented. Subsequently, in August 2004, four Monitored Natural Attenuation Reports (MNA Reports) were presented to EPA as a part of the proposed remedy. Three of these MNA Reports have been approved by the EPA, and only the MNA Report at the Paraxylene Complex is still under review by the EPA at the time of this permit issuance.

There were 88 SWMUs and/or AOCs identified during the two RFAs. The current status of each of these 88 sites is shown in Table 1. As shown on Table 1, to date, a total of 77 of these sites have achieved a No Further Action Status (NFA), a To Be Addressed (when the facility closes) Status (TBA), or were determined not to be SWMUs or AOCs (in the case of SWMU 33 only) based on evaluation of the Phase I RFI, Phase II RFI, Risk Assessments, AOC Confirmatory Sampling results, Interim Measures and Corrective Measures Study Reports. The remaining 11 SWMUs and AOCs were evaluated and addressed in the CMS; and several of these SWMUs will be addressed in the Ecological Risk Assessment as the East Hill and Lagoon No. 3.

**Table 1. Current corrective action status of SWMUs and AOCs at the Chevron Refinery, Pascagoula, Mississippi.**

<b>SWMU/AOC NUMBER</b>	<b>SWMU/ AOC NAME</b>	<b>CURRENT STATUS</b>	<b>UNIT COMMENT</b>
1	Landfill A	CMS	Remedy Not Yet Implemented
2	Landfill B	CMS	Remedy Not Yet Implemented
3	Landfill C	CMS	Remedy Not Yet Implemented
4	Landfill D	CMS	Remedy Not Yet Implemented
5	Landfill E - Corning	NFA	
6	Skim Pond	NFA	Wastewater SWMA
7	Aeration Basin	TBA	Wastewater SWMA
8	Lagoon No. 1	TBA	Wastewater SWMA
9	Lagoon No. 2	TBA	Wastewater SWMA
10	Lagoon No. 3	ERA	Remedy Not Yet Implemented
11	South Surge Pond	TBA	Wastewater SWMA
12	North Surge Pond	TBA	Wastewater SWMA
13	Cooling Tower Blowdown Pond	NFA	
14	Corning Site Wastewater Lagoons (2)	NFA	
15	Coke Storage Area Pond	NFA	
16	TEL Weathering Area (East Hill)	NFA	RFA
17	API Separator No. 1	NFA	
18	API Separator No. 2	NFA	
19	API Separator No. 6	NFA	
20	API Separator No. 7	NFA	RFA
21	Dissolved Nitrogen Flotators (DNF) No. 1&2	NFA	RFA
22	Induced Nitrogen Flotator No. 1 and Ballast INF	NFA	RFA
23	RDS Catalyst Storage Area	NFA	RFA
24	Former Catalyst Storage Areas	NFA	RFA
25	Waste Container Storage Area (long - term)	NFA	RFA
26	East Catalyst Pad	NFA	Regulated Under State Permit
27	South Catalyst Pad	NFA	RFA
28	North Landfarm	NFA	Regulated Under State Permit
29	East Landfarm	NFA	Regulated Under State Permit
30	COD Pond	NFA	RCRA Clean Closed
31	Caustic Area Storage Pond	NFA	RCRA Clean Closed
32	Wharf Area Retention Pond	NFA	



<b>SWMU/ NUMBER</b>	<b>CURRENT AOC NAME</b>	<b>UNIT STATUS</b>	<b>UNIT COMMENT</b>
33	Dredge Spoil Area	NOTE <sup>1</sup>	Removed from EPA List
34	Ammonia Plant Demineralizer Ponds (2)	NFA	
35	Acid Area Retention Pond	NFA	Monitoring required
36	Closed TEL Weathering Area	NFA	RCRA Clean Closed
37	Old Catalyst Pile A	NFA	RFA
38	Old Catalyst Pile B	NFA	RFA
39	Corning Site Lime Waste	NFA	RFA
40	Recovered Oil Tanks No. 181, 190, 192	NFA	Monitoring required
40A	Recovered Oil Tank No. 90	NFA	
41	Sour/Foul Water Tanks No. 180, 191, 193, 197, 198	NFA	RFA
42	Spent Caustic Tanks No. 70, 71, 72, 73, 75, 76	NFA	RFA
43	Spent Caustic Tank No. 80	NFA	RFA
44	Spent Sulfuric Acid Tanks No. 44, 45, 48	NFA	Monitoring required
45	RDS Catalyst Washwater Tank No. 8100	NFA	RFA
46	COD Tanks No. 3200, 3201	NFA	RFA
47	Oily Sludge Coking and Recycling System (OSCAR)	NFA	RFA
48	Hazardous Waste Container Storage Area(s)	NFA	RFA
49A - P	Drum Pick-Up Areas (16)	NFA	RFA
49Q	Drum Pick-Up Area	NFA	
50	Roll off Hazardous Waste Container(s)	NFA	RFA
51	Wharf Area Neutralization Unit	NFA	RFA
52	Alky Neutralization Unit	NFA	RFA
53	Alky II Neutralization Unit	NFA	RFA
54	Acid Storage Neutralization Unit	NFA	RFA
55	Ammonia Plant Neutralization Unit	NFA	RFA
56	RDS Catalyst Transfer Pad	NFA	Reintroduced in Phase II
57	North Canal	NFA	Monitoring required
58	South Canal	NFA	
59	Drum Rinsing/Cleaning Area	NFA	RFA
60	Fire Training Area	CMS	Remedy Not Yet Implemented
61	Air Emissions Control Devices	NFA	RFA
62	Oil Recovery Unit (former API Separator No. 5)	NFA	RFA
63	Wastewater Sumps & Oil Spillage Containment Areas	NFA	RFA
64	Old Tank Truck Loading Rack	NFA	

<b>SWMU/AOC NUMBER</b>	<b>SWMU/ AOC NAME</b>	<b>CURRENT STATUS</b>	<b>UNIT COMMENT</b>
65	Product Tank No. 173	NFA	Monitoring required
66	Product Tank No. 331	NFA	Monitoring required
67	Asphalt Dump Area	NFA	RFA
68	Old FCC Catalyst Fines Disposal Area	NFA	
69	Paint Storage Area	NFA	
70	Caustic Storage Area & Sump	NFA	
71	Blending Chemical Additive Area	NFA	Monitoring required
72	Landfill Underneath TEL Weathering Area	CMS	RemedyNot Yet Implemented
73 HERE	KR-20 Yard	NFA	
74	Tenemene Area at FCC	NFA	
75	Abandoned Fill Line for Old UST	NFA	
76	Wharf Area Product Dock Shoreline Revetment	CMS	Monitoring required
77	Paraxylene Complex	CMS	Monitoring required
78	Treater Section for Crude Unit No. 2	NFA	
79	Blending & Shipping Tank Field Area	NFA	Monitoring required
80	Oily Dirt Pile	CMS	Monitoring required
81	Spill Trench at Alkylation Unit #1	NFA	
82	Landfill at East Hill	CMS	RemedyNot Yet Implemented
83	Tank No. 333	NFA	Monitoring required
84	West Ditch	NFA	
85	Middle Ditch	NFA	Monitoring required
86	Spiral Lift Pit at #7 Separator	NFA	

**NOTE<sup>1</sup> Not Considered a SWMU or AOC.**

Blue - Indicates a site requiring a CMS.

Green - Indicates a site that has achieved NFA-ATT status.

Yellow - Indicates units to be addressed (TBA) when taken out of service. Units are currently part of active, permitted NPDES wastewater treatment system

SWMU - Solid Waste Management Unit

AOC - Area of Concern

TBA - To Be Addressed when taken out of service

NFA - No Further Action

ERA - Ecological Risk Assessment

IM - Interim Measures

CMS - Corrective Measures Study

SWMA - Solid Waste Management Area

The CMS Report for the remaining SWMUs and AOCs requiring corrective action was approved by EPA in April 2004. Activities in the CMS included additional field evaluations, various treatability studies, Monitored Natural Attenuation (MNA) Studies, and technology feasibility studies. Once all the data was collected and studies were complete, Chevron Products Company further evaluated various corrective measures for the remaining sites under corrective action and EPA reviewed the various corrective measures.

The remaining SWMUs and AOCs, that EPA has required to be addressed for the final remedy, are categorized into eight groups, based on similar processes, similar constituents of concern or similar location within the facility. The eight groups are listed below with notes on NFA determinations made since the CMS Report:

**Wharf Revetment Area** - includes AOC 76 (Wharf Area Product Dock Shoreline Revetment). This area requires some reconstruction of the revetment, and must continue to be monitored.

**Lagoon No. 3** - includes SWMU 10 (Lagoon No. 3)

**MNA Sites** - includes AOCs 65 (Tank 173), 66 (Tank 331), 77 (Paraxylene Complex), and 83 (Tank 333) Three of the four MNA sites are No Further Action at the time of this permit issuance, as long as monitoring and engineering controls remain in place: AOCs 65 (Tank 173), 66 (Tank 331), and 83 (Tank 333)

**Acid Sites** - includes the Stormwater Solid Waste Management Area (SWMA) (SWMU 35 - Acid Retention Pond and SWMU 57 - North Canal) and AOC 44 (Spent Sulfuric Acid Tanks 44, 45, and 48). This area requires No Further Action at this time but must continue to be monitored.

**Metals Sites** - includes AOC 71 (Blending Chemical Additive Area) and AOC 85 (Middle Ditch). This area requires No Further Action at this time but must continue to be monitored.

**Miscellaneous Tankfield Sites** - includes West Tankfield and Tank 423 (both part of AOC 79 - Blending and Shipping Tankfield Area) and Tank 190 (part of AOC 40 - Recovered Oil Tanks 181, 190, and 192). This area requires No Further Action at this time but must continue to be monitored.

**East Hill** - includes SWMUs 1 (Landfill A), 2 (Landfill B), 3 (Landfill C), 4 (Landfill D), 60 (Fire Training Area), and AOCs 72 (Landfill Beneath TEL Weathering Area) and 82 (Landfills Underneath the East Landfarm / East Catalyst Pad)

**Wastewater Treatment Area**- These units include the Wastewater SWMA, SWMU 7 (Aeration Basin), SWMU 8 (Lagoon No. 1), SWMU 9 (Lagoon No. 2), SWMU 11 (South Surge Pond) and SWMU 12 (North Surge Pond). These units are currently part of the Refinery's active wastewater treatment system, regulated under the NPDES program and permit. As such, these units will not be addressed under the RCRA Corrective Action program, unless or until those

units are no longer in service. Further, SWMU 6, which is part of this SWMA, has already received a No Further Action designation.

### **Recommended Remedy and Final Risk Goal Performance Standards**

The recommended remedy for the facility is to achieve the Final Risk Goal Performance Standards set forth in the Performance Agreement and in Section V of this permit, using selected technologies and controls, specified in the Corrective Measures Study and related documents. The proposed corrective measure for each of the 8 groups of sites listed above, presents the technology and approaches that Chevron will implement to achieve the performance standards for each group of sites. If at some point, EPA and Chevron Products Company find the proposed corrective measures to be ineffective, alternative corrective measures will be implemented for individual SWMUs or AOCs. Groundwater will be monitored for conformance with the Performance Standards. This monitoring program will be described in the Performance Monitoring Plan as part of the Performance Agreement.

### **RCRA and HSWA Permit**

The facility also has a RCRA permit for RCRA regulated units issued by the Mississippi Department of Environmental Quality. RCRA corrective action at a number of regulated units has positively impacted the overall cleanup at the entire facility and the regulated units are also listed as SWMUs in this permit. The federal HSWA Permit is being issued for the remedy because MDEQ does not have authorization for this portion of the corrective action program. Consequently, a Fact Sheet including the Statement of Basis for the remedy has been written and is being public noticed in conjunction with the full RCRA and HSWA Permit.

## **PART IV. COMPLIANCE SCHEDULE**

The Permittee is required to complete its corrective action in compliance with the schedule listed below. However, the Regional Administrator may choose to streamline the investigative and remedial process by allowing the facility to skip or combine steps in the traditional Subpart S corrective action process and/or in this Schedule of Compliance.

Schedule of Compliance	Due Date
Notification of Newly Identified SWMUs and AOCs <i>See Condition II.B.1. and Condition II.B.2.</i>	Within fifteen (15) calendar days of discovery
SWMU Assessment Report <i>See Condition II.B.3.</i>	Within ninety (90) calendar days of notification
Notification for Newly Discovered Releases at Previously Identified SWMUs and AOCs <i>See Condition II.C.1.</i>	Within fifteen (15) calendar days of discovery

Schedule of Compliance	Due Date
Noncompliance/Imminent Hazard Report <i>See Condition I.D.14.</i>	Oral within 24 hours and written within fifteen (15) calendar days of becoming aware of the hazardous circumstances
Demonstration of HSWA Financial Assurance <i>See Condition II.H.4.</i>	Within six months of the effective date of this permit.
Document equivalent to Corrective Measures Implementation Report (CA450)	Dates corresponding to semiannual reports agreed upon by both Chevron Products Company and the EPA.
Document equivalent to Corrective Measures Construction Report (CMI Workplan) (CA500)	Dates corresponding to semiannual reports agreed upon by both Chevron Products Company and the EPA.
Final Remedy Completion Report(s) equivalent to Certification of Remedy Completion or Construction Completion (CA550NR or RC) or equivalent	Within one year and one quarter of completion of construction activity (allows for one year of monitoring, assuming routine monitoring). Report(s) to include, if necessary, operations and maintenance plan (including any necessary institutional and/or engineering controls), if conditions arise that result in the need for ongoing operations and maintenance after completion of the work required by the Performance Agreement.
Document acknowledging completion of the RCRA Corrective Action Obligations equivalent to Corrective Action Terminated (CA999)	EPA to provide within six months of certification of remedy completion, provided permittee has satisfied the obligations of 3004(u) and (v) and appropriate Institutional Controls are in place and duly recorded.
The above reports or equivalent must be signed and certified in accordance with 40 CFR §270.11.	

## PART V. PERFORMANCE STANDARDS

The Performance Standards for the Permittee are; MCLs, Region 9 Preliminary Remediation Goals, Region 4 Risk Based standards, and, where appropriate, site-specific conditions using current and reasonably foreseeable future land uses at the facility.

Performance Standards will be based on site-specific risk goals, release and receptor characteristics, projected future land use, statutory standards and regulatory standards. These standards must have the approval of EPA, Region 4, and the MDEQ.

Surface Water - Surface Water Quality Standards established pursuant to the Clean Water Act by the State of Mississippi will be the standards by which the facility is measured. However, there are no naturally occurring on-site surface water bodies at the facility, therefore NPDES discharge standards will apply to man-made surface water conveyances as long as the on-site waters are routed through the active permitted NPDES discharge points monitored by the state and federal agencies.

Air - The facility is regulated under OSHA for onsite workplace exposures. All constituents identified to date through the corrective action program are manufacturing products or chemicals used in the process, therefore, OSHA standards will apply onsite. EPA's guidance entitled OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) November 2002 EPA530-D-02-004 or successor draft or final document shall be followed if offsite indoor air releases are detected.

If, in the future, the facility has offsite releases, resulting in outdoor exposures from air constituents originating from environmental contamination, screening levels for human health shall be the RfC (Reference Concentrations), where available. The RfC includes exposure assumptions, and no calculations are necessary to calculate a screening level. If an RfC is not available for a particular constituent, the recommended methodology and assumptions that shall be followed are found in the Region 9 tables of Preliminary Remediation Goals.

If, in the future, the facility has offsite releases, resulting in indoor exposures from air constituents originating from environmental contamination, screening levels for indoor air shall be based on EPA target indoor air concentrations presented in its draft or current Vapor Intrusion Guidance using a 10<sup>-5</sup> or lower risk level for exposure to carcinogenic contaminants in a residential setting, or a hazard index of 1.0 for non-carcinogens.

Soils (surface and subsurface) - Specific soil clean up levels will be based on Region 9 Preliminary Remediation Goals for industrial soils, modified where applicable to site specific conditions or other comparable risk based concentrations.

Sediments - Screening levels for constituents in sediment shall be based on whether human health or ecological health is the major concern. If ecological concerns are deemed to predominate, then screening levels for constituents in sediment shall be concentrations based on the latest sediment screening values as calculated by Region 4 in its current Risk Assessment Guidance (RAGS). If an ecological sediment screening value for a constituent of concern has not been generated by Region 4, and cannot be generated, then the ecological screening level for sediment shall be background.

If human health is the prevailing concern, then the human health screening level for sediment shall address all applicable exposures.

Sediments in active NPDES units will not be addressed until those units are no longer in service, with the exception of Lagoon No. 3. Lagoon No. 3 sediments will be further evaluated through an ecological risk assessment. Based on the results of that assessment, corrective action performance standards will be set, if needed, to reduce the toxicity, mobility and/or volume of the contaminated sediments to levels consistent with appropriate ecological risk factors for an industrial land use setting. Performance standards will be based on exposure pathways, or lack thereof, toxicity of various constituents, and mobility of various constituents.

Groundwater – The compliance point for RCRA corrective action cleanup standards will be at the Operational Boundary. The standards will be based on Region 9 Preliminary Remediation Goals and Maximum Concentration Limits for constituents of concern unless Alternate Concentration Limits are approved by the MDEQ.

Groundwater cleanup objectives within the Facility Boundary will address human health issues, and where appropriate, such as Lagoon No. 3 ecological issues. Groundwater discharges within the Operational Boundary that enter the NPDES wastewater treatment system will be addressed under the Surface Water Performance Standard described above. Groundwater will be monitored within the Operational Boundary to ensure that monitored natural attenuation is occurring, where appropriate. Additional parameters and constituents of concern may be added to the monitoring plan as needed.

## **PART VI. INSTITUTIONAL, LAND USE, AND ENGINEERED CONTROLS**

The facility must implement institutional or other appropriate non-engineering controls for protection of human health and the environment from contamination left in place at any SWMUs or AOCs closed with waste in place, under Monitored Natural Attenuation, and/or No Further Action with future conditions. Institutional controls will be used to protect the remedy if the HSWA permit is terminated at the completion of corrective action, with controls. See Final Guidance on Completion of Corrective Action Activities at RCRA Facilities **68 FR 8757**, Tuesday, February 25, 2003.

The Permittee will develop and implement any and all necessary engineered and institutional controls to ensure the achievement of the performance standards. It is the Permittee's, responsibility and discretion to select the technologies and controls that will be used to achieve the Performance Standards. The Permittee will be accountable to EPA for the operation of these technologies and controls to achieve the Performance Standards within the time frames agreed upon by both parties. The Permittee takes sole responsibility for the engineering and scientific validity of the chosen remedy technologies. If it becomes apparent to either party that a corrective measure is not achieving the results necessary to meet the Performance Standards, the Permittee may select an alternate technology or technologies to achieve the agreed upon results.

As part of the corrective measures selection process and during on-going operations, the Permittee may include certain institutional controls, such as internal policies and procedures for



handling wastes and activities in or around SWMUs and AOCs, posting signs and other guidance on-site, including restrictions in operations and environmental manuals and/or internal websites, and other types of controls. These internal controls will be initiated and implemented at the Permittee's discretion. EPA will be advised of these controls.

A detailed listing of EPA's Institutional Controls may be found at the following EPA Website: <http://www.epa.gov/epaoswer/hazwaste/ca/resource/guidance/ics/matrxrv3.pdf>.

The Institutional Controls and/or Land Use Restrictions listed in any Declaration shall be designed to survive the EPA HSWA permit.

## **PART VII. FINANCIAL ASSURANCE**

Financial Assurance for HSWA Corrective Action is required within six months of the effective date of this permit (see Table III.1) and shall follow Interim Guidance on Financial Responsibility for Facilities Subject to RCRA Corrective Action, September 30, 2003, and shall conform to requirements at 40 CFR, Part 264, and Subpart H.

## **PART VIII. FACILITY SPECIFIC CONDITIONS**

1. The Chevron Products Company shall evaluate the integrity, inspection, and testing currently performed under the operational requirements at the facility for RCRA regulated units and, if necessary, develop a plan to address any additional requirements that might be warranted for any SWMUs, SWMAs, or AOCs where known or suspected releases of constituents have resulted in groundwater or soil contamination.
2. The Chevron Products Company will continue to pursue a policy of aggressive source control at all SWMUs and AOCs where source removal is currently not possible because of the presence of existing plant equipment and machinery.